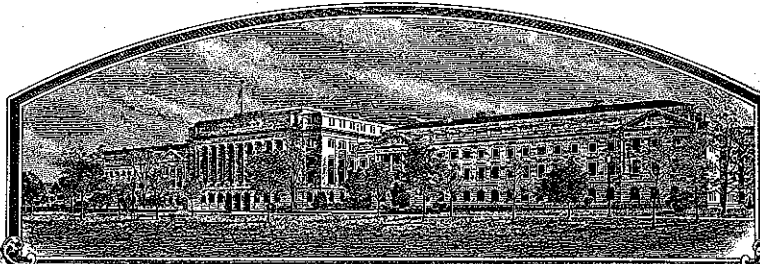


No.

200500198



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

AgriPro Wheat, a business unit of Advanta U.S.A., Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'AP603 CL'


In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this seventeenth day of March, in the year two thousand and six.

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE <i>(Instructions and information collection burden statement on reverse)</i>		The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.  <i>Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).</i>	
1. NAME OF OWNER <b>AgriPro Wheat, a business unit of Advanta U.S.A., Inc.</b>		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER <b>Gun 205xGun 208</b>	3. VARIETY NAME <b>AP603 CL</b>
4. ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) <b>6515 Ascher Road Junction City, Kansas 66441</b>		5. TELEPHONE (include area code) <b>785-210-0218</b>	FOR OFFICIAL USE ONLY PVPO NUMBER <div style="font-size: 2em; font-weight: bold;">200500198</div>
		6. FAX (include area code) <b>785-210-0231</b>	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM ORGANIZATION (corporation, partnership, association, etc.) <b>Corporation</b>	8. IF INCORPORATED, GIVE STATE OF INCORPORATION <b>Delaware</b>	9. DATE OF INCORPORATION <b>'1985</b>	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) <b>Dr. Rollin Sears 6515 Ascher Road Junction City, Kansas 66441</b>		Copy to: <b>Chris Bruns PO Box 30 Berthoud, CO 80513 rbruns@frit.com</b>	
11. TELEPHONE (include area code) <b>785-210-0218</b>	12. FAX (include area code) <b>785-210-0231</b>	13. E-MAIL <b>rollin.sears@agripro.com</b>	
14. CROP KIND (Common Name) <b>Hard Red Spring Wheat</b>	16. FAMILY NAME (Botanical) <b>Gramineae</b>	18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.	
15. GENUS AND SPECIES NAME OF CROP <b>Triticum aestivum</b>	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23)	
		21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED	
23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)	
25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF OWNER 		SIGNATURE OF OWNER	
NAME (Please print or type) <b>Dr. Rollin Sears</b>		NAME (Please print or type)	
CAPACITY OR TITLE <b>R&amp;D Manager</b>	DATE	CAPACITY OR TITLE	DATE

(See reverse for instructions and information collection burden statement)

**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

## ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

## 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

The variety 'AP603 CL' will be constituted from Breeders seed, and proceed through Foundation, Registered and Certified in succeeding generations. Generations which may be multiplied will be limited to Breeders seed, Foundation, Registered and Certified.

## 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Certified seed stocks of AP603 CL will be available in the spring of 2005.

## 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

The line/variety referenced herein possesses imidazolinone herbicide tolerance conferred by proprietary trait protected by "US Patent 5,369,022. Filed September 17, 1993. Issued November 29, 1994. Assignee: BASF Agrochemical Products, B.V.

**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

## ***Exhibit A.***

### ***Origin and Breeding History of AP603 CL***

AP603 CL is a hard red spring wheat developed by AgriPro Wheat that has tolerance to the imidazolinone herbicide, imazamox. It was derived from a cross between imazamox tolerant lines, Gunner 205 CL and Gunner 208 CL. Both of these parental lines were derived from the AgriPro HRSW Variety 'Gunner' through mutagenesis. The phenotypes of these parents closely resembled 'Gunner'. The imazamox tolerances in Gun 205 CL and Gunner 208 CL were conferred from single co-dominant genes referred to as AHAS L1D S653N and AHAS L1B S653N, respectively. AP603 CL was developed through recurrent screening and selection from segregating generations F2 through F4 for stronger tolerance to imazamox than either parent. The tolerance in AP603 CL is conferred from the combination of both AHAS L1D S653N and AHAS L1B S653N genes. Its phenotype closely resembles 'Gunner'.

The cross was made in the summer of 2001 in the AgriPro greenhouse at Berthoud, CO. F2 populations were screened with imazamox (.096 a.i./ac) in the winter greenhouse. Individual F3 plants were grown from 389 surviving F2 plants and furthered screened with imazamox (.144 a.i./ac). Eight F4 headrows from each of 59 apparent homozygous families were grown at Crookston, MN in 2002. Individual F4 headrows were harvested from 15 families and increased in New Zealand in 2002-3. A simultaneous greenhouse screen with imazamox (.144 a.i./ac) was performed on each individual F4 headrow bulk to further identify homozygosity. On the basis of imazamox screening results, F5 progenies from 10 families were selected and harvested in New Zealand. They were yield tested at four locations in the Northern Plains in the summer of 2003. A total of 13 F6 (F3 derived) progenies of the three highest yielding families were combined to form the pre-breeder seed lot. Prior to bulking, these progenies were individually screened using allele-specific PCR primers and found to be homozygous for both genes.

In 2003, thirty-eight progeny plots were grown in Eaton, Colorado. Thirteen progeny plots were selected and bulk harvested to be grown out as an eleven acre Breeder seed increase at Brawley, CA during the winter of 2003-2004 which produced 30,170 pounds of Foundation seed.

AP603 CL has been uniform and stable since 2004. Less than 0.8% of the total plants were rogued from the Breeder seed increase in 2003-2004 in CA. Approximately 80% the variant plants were taller height wheat plants (8 to 15 cm), and approximately 10% the variant plants were awnless wheat plants. Up to 1.0% variant plants may be encountered in subsequent generations.

***Exhibit B.***  
***Statement of Distinctness***

AP603 CL is most similar to the hard red spring wheat 'Gunner'. However, it can be easily distinguished by the following characteristics:

- AP603 CL contains two single co-dominant genes referred to as AHAS L1D S653N and AHAS L1B S653N that confer tolerance to the registered herbicide "Beyond" (imazamox) owned by BASF. This herbicide controls a broad spectrum of both weedy annual grasses and broadleaf weeds in wheat. The variety Gunner does not possess these herbicide tolerance genes. All current wheat cultivars without ALS resistance genes including Gunner are susceptible to the herbicide.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (*Triticum* Spp.)

NAME OF APPLICANT(S) <b>AgriPro Wheat</b>	TEMPORARY OR EXPERIMENTAL DESIGNATION <b>Gun205/Gun208</b>	VARIETY NAME <b>AP603 CL</b>
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) <b>6515 Ascher Road Junction City, Kansas 66441</b>		<div style="background-color: black; color: white; text-align: center; padding: 5px;">             INFORMATION FOR PVPO ONLY           </div> PVPO NUMBER <b>2005 00198</b>

## PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., 0 9 9 or 0 9) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: \_\_\_\_\_. Please answer all questions for your variety; lack of response may delay progress of your application.

## 1. KIND:

1

- 1=Common  
2=Durum  
3=Club  
4=Other (specify) \_\_\_\_\_

## 2. VERNALIZATION:

1

- 1=Spring  
2=Winter  
3=Other (specify) \_\_\_\_\_

## 3. COLEOPTILE ANTHOCYANIN:

1

- 1=Absent 2=Present

## 4. JUVENILE PLANT GROWTH:

3

- 1=Prostrate 2=Semi-erect 3=Erect

## 5. PLANT COLOR (boot stage):

2

- 1 = Yellow-Green  
2 = Green  
3 = Blue-Green

## 6. FLAG LEAF (boot stage):

1

- 1 = Erect 2 = Recurved

2

- 1 = Not Twisted 2 = Twisted

2

- 1 = Wax Absent 2 = Wax Present

## 7. EAR EMERGENCE:

0 6 5

Number of Days (Average)

Number of Days Earlier Than \*

Same As

\*GUNNER

Number of Days Later Than \*

\*Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

## 8. ANTHR COLOR:

1

- 1 = YELLOW 2 = PURPLE

5

## 9. PLANT HEIGHT: (from soil to top of head, excluding awns):

200500198

0	8	5
---	---	---

cm (Average)

cm Taller Than

--	--

Same As

--	--

cm Shorter Than

\* \_\_\_\_\_

\*GUNNER

\* \_\_\_\_\_

## 10. STEM:

## A. ANTHOCYANIN

1
---

1 = Absent 2 = Present

## B. WAXY BLOOM

2
---

1 = Absent 2 = Present

## C. HAIRINESS (last internode of rachis)

2
---

1 = Absent 2 = Present

## D. INTERNODE

1
---

1 = Hollow 2 = Semi-solid 3 = Solid

5
---

Number of Nodes

## E. PEDUNCLE

1
---

1 = Erect 2 = Recurved 3 = Semi-erect

1	9
---	---

cm Length

## F. AURICLE

2
---

Anthocyanin 1 = Absent 2 = Present

2
---

Hair: 1 = Absent 2 = Present

## 11. HEAD: (At Maturity)

## A. DENSITY

2
---

1 = Lax  
2 = Middense (Laxidense)  
3 = Dense

## B. SHAPE

1
---

1 = Tapering  
2 = Clavate  
3 = Strap  
4 = Other (specify) \_\_\_\_\_

## C. CURVATURE

2
---

1 = Erect  
2 = Inclined  
3 = Recurved

## D. AWNEDNESS

4
---

1 = Awnless  
2 = Apically awnletted  
3 = Awnletted  
4 = Awned

## 12. GLUMES: (At Maturity)

## A. COLOR

1
---

1 = White  
2 = Tan  
3 = Other (specify) \_\_\_\_\_

## E. BEAK WIDTH

2
---

1 = Narrow  
2 = Medium  
3 = Wide

## B. SHOULDER

3
---

1 = Wanting 2 = Oblique  
3 = Rounded 4 = Square  
5 = Elevated 6 = Apiculate  
7 = Other (Specify) \_\_\_\_\_

## F. GLUME LENGTH

1
---

1 = Short (ca. 7mm)  
2 = Medium (ca. 8mm)  
3 = Long (ca. 9mm)

## C. SHOULDER WIDTH

1
---

1 = Narrow  
2 = Medium  
3 = Wide

## G. WIDTH

1
---

1 = Narrow (ca. 3mm)  
2 = Medium (ca. 3.5mm)  
3 = Long (ca. 4mm)

## D. BEAK

3
---

1 = Obtuse  
2 = Acute  
3 = Acuminate

## 13. SEED:

## A. SHAPE

1

- 1 = Ovate  
2 = Oval  
3 = Elliptical

## E. COLOR

3

- 1 = White  
2 = Amber  
3 = Red  
4 = Other (Specify) \_\_\_\_\_

200500198

## B. CHEEK

1

- 1=Round  
2=Angular

## F. TEXTURE

1

- 1 = Hard  
2 = Soft  
3 = Other (Specify) \_\_\_\_\_

## C. BRUSH

2

- 1 = Short  
2 = Medium  
3 = Long

1

- 1 = Not Collared  
2 = Collared

0

- 1 = Ivory  
2 = Fawn  
3 = Light Brown  
4 = Dark Brown  
5 = Black

## D. CREASE

2

- 1 = Width 60% or less of Kernel  
2 = Width 80% or less of Kernel  
3 = Width Nearly as Wide as Kernel

## H. SEED WEIGHT

g/1000 Seed (Whole number only)

## I. GERM SIZE

2

- 1 = Small  
2 = Midsize  
3 = Large

## 14. DISEASE:

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

(0 = Not Tested

1 = Susceptible

2 = Resistant

3 = Intermediate

4 = Tolerant)

2

Stem Rust (*Puccinia graminis* f. sp. *tritici*)

3

Leaf Rust (*Puccinia recondita* f. sp. *tritici*)Stripe Rust (*Puccinia striiformis*)

0

Loose Smut (*Ustilago tritici*)Tan Spot (*Pyrenophora tritici-repentis*)

0

Flag Smut (*Urocystis agropyri*)

0

Halo Spot (*Selenophoma donacis*)

0

Common Bunt (*Tilletia tritici* or *T. laevis*)

Septoria nodorum (Glume Blotch)

0

Dwarf Bunt (*Tilletia controversa*)

0

Septoria avenae (Speckled Leaf Disease)

0

Karnal Bunt (*Tilletia indica*)

Septoria tritici (Speckled Leaf Blotch)

0

Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*)

0

Scab (*Fusarium* spp.)

0

Snow Molds

0

Black Point (Kernel Smudge)

0

Common Root Rot (*Fusarium*, *Cochliobolus* and *Bipolaris* spp.)

0

Barley Yellow Dwarf Virus (BYDV)

0

Rhizoctonia Root Rot (*Rhizoctonia solani*)

0

Soilborne Mosaic Virus (SBMV)

0

Black Chaff (*Xanthomonas campestris* pv. *translucens*)

0

Wheat Yellow (Spindle Streak) Mosaic Virus

0

Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)

0

Wheat Streak Mosaic Virus (WSMV)

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

## 15. INSECT:

(0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

0

Hessian Fly (*Mayetiola destructor*)

Other (specify) \_\_\_\_\_

0

Stem Sawfly (*Cephus* spp.)

Other (specify) \_\_\_\_\_

0

Cereal Leaf Beetle (*Oulema melanopa*)

Other (specify) \_\_\_\_\_

7



15. INSECT: (continued) (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

200500198

PLEASE SPECIFY BIOTYPE (where needed)

0

Russian Aphid (*Diuraphis noxia*)

Other (specify)

0

Greenbug (*Schizaphis graminum*)

Other (specify)

0

Aphids

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

None

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***Exhibit D.***  
***Additional Description of AP603 CL***

AP603 CL is a hard red spring wheat developed by AgriPro Wheat. This variety is tolerant to the imidazolinone herbicide, imazamox. It was derived through enhanced breeding techniques from the hard red spring variety, Gunner. It resembles Gunner in performance, agronomics, and disease tolerance. It has standard height with moderate straw strength, medium-late maturity and very high test weight. It is moderately resistant to stem rust and moderately susceptible to leaf rust. It has good protection to fusarium head blight and fair protection to foliar diseases. AP603 CL has very high protein and good overall breadmaking quality.

Juvenile growth habit is erect. Seedling anthocyanin is present. Plant color at boot stage is green. Auricle anthocyanin and auricle hairs are present. Flag leaf at boot stage is erect and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is tapering and awned. Glumes are glabrous, short in length and narrow in width and with oblique shoulders and acuminate beaks. Seed shape is ovate. Brush hairs are medium in length. Seed cheeks are rounded. Seed crease depth is mid-deep and width is midwide.

AP603 CL is adapted to spring wheat growing areas of the northern plains including the states of North Dakota and Montana. It is best adapted to the northern areas of the region.

200500198

# AgriPro Spring Wheat Quality

Year-Loc	Flour/Wheat Quality				Mixogram			Baking Quality				Crumb	
	Wht	Flr	Norris	Flr	Peak	Peak	Tol.	Bake	BakeMix	Loaf	Grain	Tex	Colo
	Prot	Prot	Hrd	Yld	Time	Ht.		Abs	Time	Vol	R	R	R
	14% m	14% m		%	min	N.U.		%	min	cc			
2005 - MI	14.8	13.6	83	70.7	3.25	5.3	837	68.0	2.70	905	4	3	4
								AP603 CL					
2005 - MI	14.1	13.1	93	70.8	3.00	5.0	1022	68.0	2.60	900	4	3	4
								GUNNER					

Ratings: 1-2=Excellent 3-4=Good 5=Acceptable 6-7=Questionable 8-9=Unacceptable

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E  
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) <b>AgriPro Wheat</b>	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME <b>AP603 CL</b>
4. ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) <b>806 North Second Street Berthoud, Colorado 80513</b>	5. TELEPHONE (include area code) OR EXPERIMENTAL NUMBER <b>970.532.3721</b>	6. FAX (include area code) <b>970.532.2035</b>
7. PVPO NUMBER <b>200500198</b>		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

**Please see following page.**

## PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

- If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species
- If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 328-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

***Exhibit E.***  
***Statement of the Basis of Applicant's Ownership***

The variety for which Plant Variety Protection is hereby sought was developed by Joe Smith, an employee of AgriPro Wheat, a business unit of Advanta U.S.A., Inc. By agreement between employees and AgriPro Wheat all rights to any invention, discovery, or development made by the employee while employed by AgriPro Wheat, were assigned to AgriPro Wheat, with no rights of any kind pertaining to 'AP603 CL' being retained by the employees.

The variety 'AP603 CL' is owned by AgriPro Wheat, a business unit of Advanta USA., Inc.